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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claim 1: (currently amended) An isolated, greater than 95% pure population of mouse neuron-restricted precursor cells derived from mouse neural tubes at embryonic day 12.0 or mouse embryonic stem cells by E-NCAM immunoreactivity.

Claim 2: (original) A method for isolating a pure population of the mouse neuron-restricted precursor cells of claim 1 comprising:

- incubating mouse embryonic stem cells under (a) the cells that differentiation-inducing conditions so differentiate; and
- isolating a pure population of mouse neuron-(b) immunoselecting E-NCAM+ restricted precursor cells by immunoreactive cells from the differentiated cells.

Claim 3: (original) A method for isolating a pure population of the mouse neuron-restricted precursor cells of claim 1 comprising:

- (a) removing a neural tube from a mouse embryo at embryonic day 12.0;
 - (b) dissociating cells from the neural tube;
- (c) plating the dissociated cells in a feeder-cellindependent culture on a substratum and in a medium embryo containing fibroblast growth factor and chick extract;
- (d) culturing the plated cells at a temperature and in an atmosphere conducive to cell growth; and

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(e) isolating a pure population of mouse neuronrestricted precursor cells by immunoselecting E-NCAMimmunoreactive cells from the cultured, plated cells.

Claim 4: (currently amended) An isolated, greater than 95% pure population of mouse glial-restricted precursor cells derived from mouse neural tubes at embryonic day 12.0 or mouse embryonic stem cells by A2B5 immunoreactivity.

Claim 5: (original) A method for isolating a pure population of the mouse glial-restricted precursor cells of claim 4 comprising:

- incubating mouse embryonic stem cells under the cells differentiation-inducing conditions so that differentiate; and
- mouse glial-(b) isolating a pure population of immunoselecting A2B5restricted precursor cells by immunoreactive cells from the differentiated cells.

Claim 6: (original) A method for isolating a pure population of the mouse glial-restricted precursor cells of claim 4 comprising:

- (a) removing a neural tube from a mouse embryo at embryonic day 12.0;
 - (b) dissociating cells from the neural tube;
- (c) plating the dissociated cells in a feeder-cellindependent culture on a substratum and in a medium containing fibroblast growth factor and chick embryo extract;
- (d) culturing the plated cells at a temperature and in an atmosphere conducive to cell growth; and

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(e) isolating a pure population of mouse glialprecursor cells bv immunoselecting A2B5restricted immunoreactive cells from the cultured, plated cells.

Claim 7: (original) An isolated, pure population of mouse neuroepithelial stem cells derived from mouse neural tubes at embryonic day 8.5 which proliferate and self renew feeder-cell-independent culture adherent containing fibroblast growth factor and chick embryo extract.

(original) A method of isolating a pure Claim 8: population of the mouse neuroepithelial stem cells of claim 7 comprising:

- (a) removing a neural tube from a mouse embryo at embryonic day 8.5;
 - (b) dissociating cells from the neural tube;
- (c) plating the dissociated cells in a feeder-cellindependent culture on a substratum and in a medium embryo containing fibroblast growth factor and chick extract; and
- (d) culturing the plated cells at a temperature and in an atmosphere conducive to cell growth to obtain a pure population of mouse neuroepithelial stem cells.